



24-HOUR EMERGENCY TELEPHONE

SPRAGUE: 603-431-1000

CHEMTREC: 800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: ULTRA LOW SULFUR DIESEL FUEL # 2 / B-20 BIODIESEL 10 TO 40 % ULTRA LOW SULFUR DIESEL FUEL #1 BLEND

Synonyms:

S15 ULSD #2 40/ULSK 40/BIO 20

S15 No.2 56/24/B-20 ULSD Clr

S15 No.2 56/24/B-20 ULSD Dyed

Chemical Formula: Not applicable to mixtures

Recommended Use of the Chemical and Restrictions On Use: Fuel

Manufacturer / Supplier: Sprague Operating Resources LLC
185 International Drive, Portsmouth, NH 03801

Phone: 603-431-1000

Emergency Phone Number: SPRAGUE: 603-431-1000; CHEMTREC: 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Flammable Liquid – Category 3

Skin Irritation – Category 2

Eye Irritation – Category 2B

Carcinogenicity - Category 2

Specific Target Organ Toxicity (Single Exposure) – Category 3

Aspiration Hazard – Category 1

Chronic Aquatic Toxicity – Category 2

Acute Aquatic Toxicity – Category 3

Risk Phrases:

R10: Flammable

R20: Harmful by inhalation.

R35: Irritating to eyes.

R38: Irritating to skin.

R45: May cause cancer.

R51 / 53: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R65: Harmful: may cause lung damage if swallowed.

Label Elements:

Trade Name: ULTRA LOW SULFUR DIESEL FUEL # 2 / =B20 BIODIESEL 10 TO 40 % ULTRA LOW SULFUR DIESEL FUEL #1 BLEND

Signal Word: Danger



Hazard Statements:

H226: Flammable liquid and vapor.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H320: Causes eye irritation.
 H335: May cause respiratory irritation.
 H336: May cause drowsiness or dizziness.
 H351: Suspected of causing cancer.
 H401: Toxic to aquatic life.

Precautionary Statements:

P210: Keep away from heat / sparks / open flames / hot surfaces. No smoking.
 P233: Keep container tightly closed.
 P240: Ground / bond container and receiving equipment.
 P241: Use explosion-proof equipment.
 P242: Use only non-sparking tools.
 P243: Take precautionary measures against static discharge.
 P260: Do not breathe dust / fume / gas / mist / vapors / spray.
 P264: Wash hands thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves / protective clothing / eye protection / face protection.
 P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
 P331: Do not induce vomiting.
 P332 + 313: If skin irritation occurs: Get medical advice / attention.
 P362: Take off contaminated clothing and wash before reuse.
 P391: Collect spillage.
 P403: Store in a well ventilated place.
 P501: Dispose of contents / container to an approved waste disposal plant.

3. Composition / Information on Ingredients

CAS Number: Not applicable to mixtures

EC Number: Not applicable to mixtures

Index Number: Not applicable to mixtures

Molecular Weight: Not applicable to mixtures

Ingredient	CAS Number	Percent	Hazardous	Chemical Characterization
Fuel, Diesel	68476-34-6	30 - 60%	Yes	Substance
Kerosene	8008-20-6	10 - 30%	Yes	Mixture
Dodecanoic acid, methyl ester	111-82-0	1 - 5%	No	Substance
Naphthalene	91-20-3	0.1 - 1%	Yes	Substance

4. First-aid Measures

Inhalation: Remove from vapor to fresh air. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen, if available. Keep affected person warm and at rest. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. When vomiting occurs, keep person's head lower than hips to prevent pulmonary aspiration. Get medical attention immediately.

Skin Contact: Remove fuel soaked clothing. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 - 20 minutes.) Get medical attention if symptoms appear.

Eye Contact: Check for and remove any contact lenses. Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention if symptoms occur.

5. Fire-fighting Measures

Fire: Flammable Liquid and Vapor!

Explosion: Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Biodiesel soaked rags or spill absorbents (i.e. oil dry, polypropylene socks, sand, etc.) can cause spontaneous combustion if stored near combustibles and not handled properly. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces.

Fire Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, and Water Fog.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Cool exposed containers with water spray. Continue water spray until entire container contents are cool. Withdraw immediately in the event of rising sound from venting safety devices or any discoloration of storage tank due to fire (subject to the fire chief's directions.) Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment as per Section 8.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air.)

If properly trained, proceed with the following measures:

1. For small spills: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
2. For large spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Dike ahead of spills to prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth) and place in container for disposal according to local regulations (see Section 13.) Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Observe local, state, and federal governmental regulations.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:

Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Protect against physical damage and excessive temperatures. Store in a well-ventilated location, away from any area where the fire hazard may be acute that complies with NFPA 30 "Flammable and Combustible Liquid Code." Separate from incompatibles, including strong oxidizers. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product. Do not reuse container. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this product is loaded into tanks previously containing low flash point products (such as gasoline) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

For Fuel, Diesel (68476-34-6):

ACGIH Threshold Limit Value (TWA): 100 mg/m³ (measured as total hydrocarbons) 8 h (skin)

For Kerosene (8008-20-6): mineral oil mist

OSHA Permissible Exposure Limit (PEL): 5 mg/m³

ACGIH Threshold Limit Value (TLV): 5 mg/m³

For Naphthalene (08-007-452):

OSHA Permissible Exposure Limit (TWA): 50 mg/m³ 8 hour(s); 10 ppm 8 hour(s)

ACGIH Threshold Limit Value (STEL): 79 mg/m³ 15 minute(s) / 15 ppm 15 minute(s)

ACGIH Threshold Limit Value (TWA): 50 mg/3 8 hour(s) / 10 ppm 8 hour(s)

NIOSH Threshold Limit Value (STEL): 75 mg/m³ 15 minute(s) / 15 ppm 15 minute(s)

NIOSH Threshold Limit Value (TWA): 50 mg/m³ 10 hour(s) / 10 ppm 10 hour(s)

Ventilation System: Indoors: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details. Use explosion-proof equipment. / Outdoors: Work upwind.

Personal Respirators (NIOSH Approved): A respirator is not needed under normal and intended conditions of use. If the exposure limit is exceeded and engineering controls are not feasible, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134).

Skin Protection: Gloves - Natural rubber (latex.) Disposable outer garments or impervious garments of equal or greater protection should be worn.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and Chemical Properties

Appearance: Reddish liquid

Odor: Gasoline-like odor

Odor Threshold: Not determined

pH: No information found

% Volatiles by volume @ 21C (70F): Not determined

Melting Point: Not determined

Boiling Point / Boiling Range: Not determined

Flash Point: 50 - 80C (122 - 176F) Closed Cup

Evaporation Rate (BuAC=1): Not determined

Flammability: Combustible
Upper / Lower Flammability or Explosive Limits: Not determined
Vapor Pressure (mm Hg): Not determined
Vapor Density (Air=1): Not determined
Relative Density: Not determined
Solubility: Insoluble
Partition Coefficient: n-octanol / water: Not determined
Auto-ignition Temperature: Not determined
Decomposition Temperature: Not determined
Viscosity: Not determined

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Stable under ordinary conditions of use and storage at normal temperatures and pressures.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

Incompatible Materials: May explode or react violently when exposed to oxidizing materials.

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, carbon dioxide and hydrocarbons.

11. Toxicological Information

Emergency Overview: WARNING! COMBUSTIBLE. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. HARMFUL IF INGESTED. ASPIRATION HAZARD. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Combustible liquid. Moderately irritating to the eyes, skin, and respiratory system. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential Health Effects:

Inhalation: Mist or vapor may cause respiratory tract irritation. CNS depressant. High levels may cause giddiness, headache, dizziness, nausea, vomiting, and loss of coordination, narcosis, stupor, coma, and unconsciousness.

Ingestion: Irritation, giddiness, vertigo, headache, anesthetic stupor, CNS depression, coma and death.

Skin Contact: Drying, cracking, and defatting dermatitis. Direct contact may cause extreme irritation with severe erythema and edema with blistering and open sores. Absorption of large amounts may result in narcosis.

Eye Contact: Moderately irritating to eyes.

Chronic Exposure:

Inhalation: Prolonged exposure may cause dizziness, weakness, weight loss, anemia, nervousness, and pain in the limbs, peripheral numbness, and paresthesia. Renal failure possible. Degenerative changes of liver and kidneys may occur after prolonged exposure to high concentrations.

Skin Contact: Repeated or prolonged exposure may cause irritation, dermatitis, and a rash of pimples and spots.

Additional Toxicological Information: Benzene may produce blood changes that include reduced platelets, red blood cells, and white blood cells; also aplastic anemia, and acute nonlymphatic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms. Health effects attributable to benzene aren't known to occur in humans exposed to kerosene. Kerosene has caused kidney injury in male rats only. No comparable health hazard for kidney disease is known to

occur in humans. An epidemiological study of workers exposed to two isomers of trimethylbenzene had symptoms of nervousness, tension and anxiety, and asthmatic bronchitis. In addition, after inhalation of 60 ppm measured as hydrocarbon vapor, the works' peripheral blood showed a tendency to hypochromic anemia and a deviation from normal in the coagulability of the blood. A lifetime inhalation study in rats did not show any toxic effects even at the high dose of 300 ppm. Behavioral signs of hearing loss were observed in rats exposed to toluene sub chronically at levels of 1000 ppm or more. Comparable effects have not been reported in humans.

Carcinogenicity:

Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Fuel, Diesel:

ACGIH: A3 - Animal carcinogen. "Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure."

IARC: 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

Kerosene:

Possible human carcinogen. Kerosene generally contains benzene which has been designated a carcinogen by the National Toxicology Program (NTP), the International agency for Research on Cancer and the Occupational Safety and Health Administration.

Naphthalene:

Naphthalene has been evaluated in two year inhalation studies in both rats and mice. The National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC.

Reproductive Toxicity: Exposure to Kerosene of pregnant rats during gestation to toluene at levels of 250 ppm and higher produces some maternal toxicity and fetotoxicity.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Aspiration Respiratory Organs Hazard: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs,) severe lung damage, respiratory failure and even death.

Acute Toxicity:

Fuel, Diesel (68476-34-6): Oral LD50: > 5000 mg/kg (rat)

Kerosene (8008-20-6):

Oral Rabbit LD50: 2,835 mg/kg

Remarks: Behavioral: Muscle weakness. Lungs, Thorax, or Respiration: Respiratory stimulation.

Endocrine: Hypoglycemia.

Naphthalene (91-20-3):

Dermal LD50: 2000 mg/kg (rabbit)

Inhalation LC50: 340 mg/m³ / 1h (rat)

Oral LD50: 490.0 mg/kg (rat)

Dodecanoic acid, methyl ester (111-82-0): No data available

12. Ecological Information

Ecotoxicity: Very toxic to aquatic life with long lasting effects.

For Fuel, Diesel: 96 h LC50 *Pimephales promelas* - 35 mg/L (flow-through)

For Kerosene: The American Petroleum Institute (API) * concludes that adequate data regarding the ecotoxicity of Kerosenes and Jet Fuels are available to demonstrate moderate acute toxicity to aquatic organisms.

For Naphthalene: 48 h LC50 *Daphnia* – 17.4 mg/L / 96h Fish – 2.25mg/L / 48h Crustaceans 2.6 – 2.89 mg/L

Persistence and Degradability: No information available for Diesel Fuel and Naphthalene. According to API *, generally, Kerosene / Jet Fuel components biodegrade significantly under aerobic conditions provided sufficient nutrients are present for conversion of the hydrocarbons to microbial biomass.

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

Other adverse effects: No information available

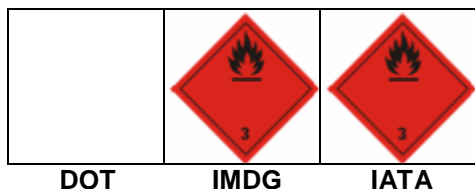
* Kerosene / Jet Fuel Category Assessment Document submitted to the US EPA: September 21, 2010

13. Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal should be in accordance with applicable regional, national, state, and local laws and regulations. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

Packing Group: III



Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

UN Number: UN1993

UN Proper Shipping Name: COMBUSTIBLE - LIQUID, N.O.S. (FUEL, DIESEL)

Transport Hazard Class(es): Combustible Liquid

Packaging Instruction:

Passenger aircraft - Quantity limitation: 60 L

Cargo aircraft - Quantity limitation: 220 L

Maritime Transport IMDG/GGVSea

UN Number: UN1202

UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (FUEL, DIESEL)

Not regulated if flashpoint is > 60C

Transport Hazard Class(es): 3

Marine Pollutant: Yes

Air Transport ICAO-TI and IATA-DGR

UN Number: UN1202

UN Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (FUEL, DIESEL)

Not regulated if flashpoint is > 60C

Transport Hazard Class(es): 3

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code

Special Precautions for User: No additional information

15. Regulatory Information

HCS Classification: Combustible liquid
Irritating material
Carcinogen
Target organ effects

U.S. Federal Regulations: TSCA 4(a) final test rules: Naphthalene; n-Hexane
TSCA 8(a) PAIR: Naphthalene
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 12(b) one-time export: Naphthalene
TSCA 12(b) annual export notification: n-Hexane
SARA 302/304/311/312 extremely hazardous substances: No products listed.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: 9-octadecenoic acid (z) methyl ester; Naphthalene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 9-octadecenoic acid (z) methyl ester: Fire hazard / Naphthalene: Fire hazard Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Naphthalene; Toluene, Ethylbenzene, Benzene
Clean Water Act (CWA) 311: Naphthalene; Xylene, Toluene, Ethylbenzene, Benzene
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products listed.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

Form R – Reporting Requirements and Supplier Notification

Product Name	CAS Number	Concentration
Naphthalene	91-20-3	1-5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State Regulations:

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: Emery, Naphthalene
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: Naphthalene, Diesel Fuel, Xylene
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Naphthalene, Xylene
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: Naphthalene, Xylene
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65

Ingredient Name	Cancer	Reproductive	No significant Risk Level	Maximum Acceptable Dosage Level
Naphthalene	Yes	No	Yes	No
Ethylbenzene	Yes	No	No	No
Toluene	No	Yes	No	7000 µg/day (ingestion) 13000 µg/day (inhal.)
Benzene	Yes	Yes	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)

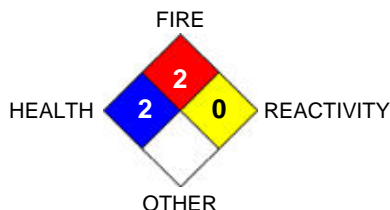
International Lists:

This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969.)

16. Other Information

HMIS / NFPA Hazard Rating:

- 4=EXTREME
- 3= SERIOUS
- 2= MODERATE
- 1=SLIGHT
- 0=MINIMAL



Effective Date: 11/01/13 – Standardized for GHS and REACH

Previous Revisions: 12/19/08

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his / her own determination of the suitability of the material for his / her particular purposes.